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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,795	07/14/2003	Udo-Martin Gomez	10191/3081	7307

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EXAMINER	
LONEY, DONALD J	
ART UNIT	PAPER NUMBER
1794	
MAIL DATE	DELIVERY MODE
07/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/618,795	GOMEZ ET AL.	
	Examiner	Art Unit	
	Donald Loney	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-9 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-9 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 16, 2008 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1, 4-9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sparks et al (6062461) in view of either Maluf et al or Regan et al (6686642) and the applicant's discussion of the prior art.

Sparks et al teaches a silicon component 14 vacuum sealed between a substrate 10 and a cap 12. Sparks et al does fail to specifically disclose the substrate as glass. Spark et al does teach that other materials besides silicon could be used (column 3, lines 46-49). Sparks also does not directly teach that the cap and component structure are directly bonded to the glass substrate. Sparks shows a solder 18, 20 used to bond the layers. Anodic bonding techniques between the layers (i.e. direct bonding) have been contemplated in the prior art per column 1, lines 34-41. Sparks et al also fail to specifically disclose the first silicon layer (i.e. a microstructured component) as greater than 50 um.

Both secondary references teach that the substrate for microstructured components can be either silicon or glass. Refer to column 3, lines 25-31 in Regan et al. Refer to column 5, lines 8-15 in Maluf et al. Maluf also contemplates using anodic bonding when glass is bonded to silicon (see column 15, lines 12-20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the primary references to form the substrate of glass, as taught by the secondary references motivated by the fact the primary reference discloses that other materials besides silicon can be used and the secondary references disclose that either silicon or glass can be used in a very similar environment. The reference to Regan et al is particularly relevant since it is drawn to a vacuum sealed microstructured component also and teaches that the substrate and/or cap can be either glass or silicon. With regards to the thickness of the first silicon layer (i.e. a microstructured component) being greater than 50 um, it is the examiners position that this would be obvious since the same components are being formed by the applicant and the prior art (i.e. yaw rate sensors per instant claim 22) and one would form the sensor of what ever size is desired for a particular application. The examiner has cited the reference to Sparks et al (5831162) since it is referred to in Sparks et al '461 as teaching about the micromachined structure 14 (column 3, lines 52-59) and discloses the silicon layer and connections per instant claims 4, 7 and 8. Refer to the entire document. Also with regards to claims 6-8, the application discussion of the prior art on page 2, lines 18-30 of the specification the applicant discusses that micro structured components having a silicon on glass layer are known. With regards to the direct bonding of the layers, Sparks discloses it is known in the prior art to directly bond the layers together using anodic bonding techniques between the layers. Refer to column 1, lines 34-41. Therefore, it would be obvious to one of ordinary skill in the art to directly bond the layers using anodic bonding (as recited by the applicant in claims 1 and 5)

motivated by the fact the prior art discloses that both techniques are known in the art and this would involve a mere substitution of one bonding technique for another. With regards to the process limitation of bonding at 400 °C this does not distinguish the structure as recited from the prior arts product. In addition, it would be obvious that one would bond the layers at whatever temperature required to form a superior bond for a particular application. While the examiner does not believe an additional reference is needed for the temperature limitation, the examiner cites Turner (6078103) as a teaching reference to the fact that anodic bonding of glass to silicon is typically done at 300-500 °C (column 7, lines 34-37). With regards to claim 22, Sparks discloses yaw rate sensors at column 3, lines 52-56. This sensor limitation also does not add any additional structure to the claims that distinguish from the prior art.

Response to Arguments

6. Applicant's arguments filed May 16, 2008 have been fully considered but they are not persuasive. The applicant argues the specific thickness of the first silicon layer, which is the micromachined component, is not taught by the prior art. However, the examiner has explained above how this would be obvious from the prior art since the same components are being formed by the applicant and the prior art (i.e. yaw rate sensors per instant claim 22) and one would form the sensor of what ever size is desired for a particular application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Loney whose telephone number is (571) 272-

1493. The examiner can normally be reached on Mon, Tues, Thurs and Fri. 8AM-4PM, flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Donald J. Loney/
Primary Examiner
Art Unit 1794

DJL:D.Loney
07/21/08